

EC Compliance Report dated 27.01.2017 (IPA (J-11011/218/2004-IA II(I) dated 24.02.2006) and Gas Based Power Project (SEAC-2010/CR.656/TC.2 dated 11.05.2011)				
Sr. No.	Specific Conditions	Status of Compliance as per Letter from MoEF dated 23.09.2013.	Remarks	
1	The gaseous emissions (SO ₂ , NO _x , NH ₃ & HCl) and particulate matter from various process units shall conform to the standards prescribed by authority. At no time the emissions shall exceed the prescribed limits. Stack height shall be as per CPCB guidelines. In the event of failure of any pollution control system adopted by the unit, the unit shall be put out of operation until the desired efficiency has been achieved.	Partly Complied: It was submitted that emissions are within prescribed standards. Stacks are numbered & heights are as per CPCB guidelines & monitored regularly with help of third party monitoring. However, continuous monitoring system was not installed to ensure emissions are within limits at all times. Reports do not show any anomaly.	1) Gas Turbine stacks are regularly analysed by MOEF Recognised Laboratory. Latest analysis reports attached at Annex 1	GT Analysis Reports
2	AAQ monitoring stations shall be set up in the downwind direction as well as where maximum ground level concentrations are anticipated in consultation with the MPCB.	Complied. Three numbers of online Ambient air monitoring stations were installed & in operation as per NAAQMS norms and connected to MPCB control room as submitted.	Continued to maintain Annex 2 - AAQMS Average Values	AAQMS Average Values
3	Fugitive emissions in the work zone environment, product and raw material storage area shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB / CPCB.	Partly complied: PA has submitted that fugitive emissions are being monitored regularly and confirmed within SPCB/CPCB norms. The monthly reports, as submitted, were not found in conformity with condition. However, sensors were installed for ammonia, chlorine, IPA & hydrocarbon & readings of LEL were taken as fugitive emissions.	1) Ten On line detection sensors for hydrocarbon leak sensing are mounted in IPA Plant and storage area. Location report attached as Annex:3. Any leak identified is taken care on top priority. 2) LEL sensors are fixed at GT-3,4 & 5 for leak detection.	Online Sensors

4	Total water requirement should not exceed 2800 m ³ /day as per permission accorded by MIDC. Further, efforts shall be made for further conservation of water and utilization of waste water.	Complied: It was observed from the records & learnt during the visit that consumption of water is within limits.	Continued to maintain.	
5	The effluent generation shall not exceed 667 m ³ /day. All the effluent shall be treated in the ETP and shall be monitored for the pH, SS, TDS, O & G, BOD, COD, Phosphates & ammonical Nitrogen & other relevant parameters. All the treated effluent shall be sent to CETP at Taloja for further treatment. The domestic effluent shall be treated in the existing Sewage Treatment Plant.	Complied: It was observed from records & learnt during the visit that generation of effluent is within limits. The monitoring reports, as submitted, do not show any anomaly.	Continued to maintain.	

6	<p>The company shall undertake following Waste Minimisation measures:</p> <ul style="list-style-type: none"> * Metering and control of quantities of active ingredients to minimise waste * Reuse of by-product from the process as raw materials or as substitutes in other products. * Use of automated filling to minimize spillage * Use of close feed system into batch reactor * Venting equipment through vapour recovery system * Use of high pressure hoses for equipment cleaning to reduce waste water generation 	<p>Partly complied: Although PA has claimed that condition is complied. However, it was observed that certain measures like, Metering and control of quantities of active ingredients, close feed system, use of high pressure hoses for equipment cleaning etc. have been implemented. Indeed, no comparative details for minimization of generation of waste reuse of by-products etc., were made available.</p>	<p>As noted metering and control of active ingredient is already in place. Moreover the company has taken detailed exercise in reuse of waste/byproducts</p> <ol style="list-style-type: none"> 1) Sale of DIPE since 2006. 2) DM plant alkaline regeneration water is recycled to cooling tower. (Since 2011). 3) Process effluent from IPA plant after treatment in a aerobic digester is recycled as Cooling tower make up . 4) Propane is recovered from propylene supply, which is sold as byproduct. 5) Steam is recovered in HRSG system from all GTs. . 	
	<p>The solid waste generated in the form ETP sludge shall be stored in HDPE lined secured landfill at the site. Spent catalyst and used oil shall be sold to authorised re-processor.</p>	<p>Partly Complied: PA has submitted that ETP sludge is disposed at TSDE as per condition and spent catalyst and used oil shall be sold to authorised re-processor. However, details were not submitted</p>	<p>Form 4 submitted to MPCB (Hazardous Waste Returns for 2015-16) is attached as Annex:4</p>	Form-4
8	<p>The PA shall strictly comply with the rules and guidelines under MSIHC Rules, 1989 as amended in October, 1994 and January 2000 and HWMH Rules, 2003 as amended from time to time. Authorisation from the SPCB shall be obtained for collection, treatment, storage and disposal of hazardous wastes.</p>	<p>Partly Complied: It was submitted that provision of MSIHC Rules have been followed. Sensors were installed for ammonia, chlorine, IPA & hydrocarbon emission. On-site emergency plan has been prepared as submitted. But, escape route was not identified. PA has obtained an autorisation under HWMH Rules.</p>	<p>In case of Emergency, Escape Routes are identified towards assembly points. Boards displayed on the roads at various locations.</p>	

9	Company shall develop surface/roof top rain water harvesting structures to harvest runoff water for recharge of ground water.	Not Complied. PA has not complied this condition.	Process of Implementation of Roof Top Rain Water Harvesting is in progress.	
10	Development of green belt area (25%) of the plant area to mitigate the effects of fugitive emission all around the plant. Development of green belt shall be as per CPCB guidelines.	Partly Complied. PA has claimed that 33% of available open land is under green cover. However, it was observed that development of green belt is unsatisfactory although few hundred saplings have been grown. GB development plan was submitted after the visit. Other details such as expenditure, survival rate, species names etc., were not submitted.	Green development and plantation photograph, expenditure, survival and species details are attached Annex:5	Green Belt
11	Occupational health surveillance of the workers shall be carried out on regular basis and records shall be maintained as per the Factories Act.	Complied: It was submitted that all the employees have been provided medical facilities as per Factories Act.	Continued to maintain.	
Sr. No.	General Conditions	Status		
1	PA shall strictly adhere to the stipulations made by the MPCB	Partly Complied. The production, consumption of water & generation of effluent were found within limits as per reports submitted. However, submission of quantitative details of generation & disposal of HW, water balance, monitoring mechanism and six monthly compliance reports were not in accordance of conditions.	1) Generation and disposal of Haz Waste report attached in Annex3 2) Cess return copy attached as Annexure 6 showing details of water balance of consumption & effluent generation which is much below the MPCB consent limit. The above items are monitored and monthly reports are submitted regularly to MPCB.	Cess Returns -Latest Copy

2	At no time the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be put out of operation until the desired efficiency has been achieved.	Partly Complied. Although monitoring of stacks & AAQ have been carried out regularly but online monitoring are not carried out to ensure emission within limits at all time.	Periodic testing of Gas turbine Heat Recovery and Steam Generation stacks by third party (MoEF Approved) is carried out. Reports attached as Annex:1. Actions are initiated for procurement and installation of online monitoring system for Heat Recovery and Steam Generation stacks.	
3	No further expansion or modifcaiton in the plant should be carried out without prior approval of this ministry. In case of deviation in the project, a fresh reference shall be made to the ministry to assess the adequncy of conditions imposed.	Agreed to Comply. PA has assured to abide by the condition.	Noted and being followed.	
4	The overall <u>noise levels</u> in and around the plant area shall be kept within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc. The ambient noise levels shall conform to the standards prescribed under the EP Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Complied. The monitoring reports do not show anomaly.	Continued to maintain --Noise level measurement reports attached as <u>Annexure-7</u>	Noise Reports

5	The PP shall also comply with all the environmental protection measures and safeguards proposed in the EIP / EMP report.	Partly Complied. Although PA has claimed that condition is complied but monitoring of fugitive emissions, rainwater harvesting, online monitors are yet to be achieved.	1) For control of fugitive emissions on line leak detectors Hydrocarbon/LEL are placed at strategic locations in IPA Plant: 10 Locations and Gas turbine area one each. Ref Annex;2 2) Process of Implementation of Roof Top Rain Water Harvesting is in progress. 3) On line monitors for NOx are fixed in Nitric Acid plants.	
6	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry-out the Environmental Management and Monitoring functions.	Complied: It was submitted that EMC has been functional at site which is headed by DGM.	Continued to maintain.	
7	The PP shall earmark adequate funds to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	Partly Complied. It was submitted that fund is utilised for implementation of environmental safeguard but details were not submitted	Budget and expenditure for EHS function is attached as Annex: 8	Budget-EHS
8	The Company shall undertake welfare measures and community development measures for the local people in the vicinity of project area.	Partly Complied: IT was submitted that CSR activities were carried out through Ishanya Fondation Trust for rural development, women employment, health & education. However, details were not submitted.	CSR report copies for years 13-14,14-15 and 15-16 attached as Annex:9	CSR Reports

9	The implementation of the project vis-vis environmental action plan shall be monitored by the concerned Regional Office of the Ministry / SPCB / CPCB six monthly compliance status reports shall be submitted to monitoring agencies.	Not Complied: Six monthly compliance reports were not submitted.	Six monthly compliance reports are being sent to state and central MOEF office. Annexure 10 - Last four reports submitted to MOEF are attached.
10	The PP shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the letters are available with the SPCB / Committee and may also be seen at website of the Ministry at http://envfor.nic.in . This shall be advertised within seven days from date of issue of the clearance letter atleast in two local news papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and the copy of the same shall be forwarded to ministry.	Complied. PA has advertised regarding grant of EC as per the condition and copies have been submitted to the Ministry.	Continued to maintain.
11	The project authorities shall inform the Regional Office as well as Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Not Complied. PA has not submitted details of financial closure and approval as per the condition.	submitted through DATA Sheet, copy attached as Annex 11
12	The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Agreed to Comply: PA has assured to abide by this condition.	Noted and being followed.

13	The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.	Agreed to Comply. PA has assured to abide by the condition.	Noted and being followed.	
14	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Complied. It is evident from the above that the implementation of environmental safeguards need sincere efforts. Moreover, submission of analytical reports and compliance needs attention. PA has obtained a policy under PLI Act as submitted.	Continued to maintain. Annexure-12	PLI Policy
OTHER CONDITIONS OF EC DATED 11.5.2011 FOR THERMAL PROJECT ISSUED BY SEAC				
1	Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution control board.	Not Complied. Although PA has claimed that condition is being followed but neither location were shown during the visit nor were analytical reports of ground water and its periodicity submitted.	Ground water is analysed periodically. The analysis has not shown any variation in water quality. The latest reports are attached for your kind reference. Annex 13	Ground water Reports
2	The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.	Complied. It was submitted that adequate measures have been taken to prevent possible fire hazards.	Continued to maintain.	
3	Regular mock drills for the on-site emergency management plan shall be carried out . Implementation of changes/improvements required, if any, in the onsite management plan shall be ensured.	Partly Complied. Although on-site emergency plan has been prepared and mock drills are conducted as submitted but reports were not submitted. Moreover, escape route leading to assembly points was also not identified and marked at ground level.	Mock drills for On site emergency are conducted regularly. Report of such exercise are submitted to Directorate of Industrial Safety And Health (DISH). The latest five reports are attached. Annex 14	Mock Drill Reports

4	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions / representations, if any were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Complied. It was submitted that EC has been uploaded on the website of the company any meeting for local NGOs and social workers were arranged for local participation on environmental awareness.	Continued to maintain.	
5	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO ₂ , NO _X (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient place located near the main gate of the company in the public domain.	Partly Complied. It was verified that PA has uploaded EC compliance without analytical reports which were recently submitted to the Ministry.	DFPCL Website is updated with compliance reports including analysis reports. Ambient air monitoring stations not only have a display at Factory gate, but it is also linked to MPCB server. (Refer Annex-2)	

	6	<p>The environmental statement for each financial year ending 31st March in Form V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by email.</p>	<p>Partly Complied. It was verified that PA has not uploaded Environmental Statement for financial year ending 31st March in Form V as per condition. Moreover, EC compliance without analytical reports which were recently submitted to the ministry has been uploaded.</p>	<p>Environmental Statement in the form V for 2015-16 is submitted on MPCB website on 27th September, 2016. Status of Compliance of EC alongwith analytical reports is being despatched to Regional Office Bhopal. Statement copy attached as <u>Annex 15</u></p>	Form-5
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Location Details For Fugitive Emission Detectors in IPA Plant and Storage Area					
Sr No	Location	Plant Area	Tag No	Alarm: High	Alarm: High High
1	N-E	cooling tower top	AE9001	LEL 20%	LEL 60%
2	S-W	condensate tank	AE9002	LEL 20%	LEL 60%
3	S-E	Deareator	AE9003	LEL 20%	LEL 60%
4	N-E	Propane separator PD3	AE9004	LEL 20%	LEL 60%
5	N-W	Reactor Area	AE9005	LEL 20%	LEL 60%
6	central area	Compressor area	AE9006	LEL 20%	LEL 60%
7	S-E	Splitter area	AE9007	LEL 20%	LEL 60%
8	E	RGP Bullet top 1	AE9008	LEL 20%	LEL 60%
9	E	RgP Bullet top 2	AE9009	LEL 20%	LEL 60%

10	E	Loading/unloading Bay	AE9010	LEL 20%	LEL 60%
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STATEMENT OF BUDGET Vs ACTUAL EXPENDITURE OF SHE DEPARTMENT

Particulars	2015 - 16		2014-15		2013-14	
	Budget	Actual	Budget	Actual	Budget	Actual
Salaries and Wages	17166394	16571570.61	26620800	19572710	25890410	22285790
Administration Overheads	11061000	6829652.97	13345000	8234020	10011070	8523240
Factory Overheads						
Conveyance and travel	150000	122349	100000	157690	60000	170950
Testing Charges	1350000	690387	1350000	647980	725000	1024230
Printing & Stationery	500000	201057	455000	194790	135000	91260
Postage & Telephones	158100	115844	231300	169840	187800	154560
Books & Periodicals	275000	60552	150000	162080	150000	101690
Training Expenses	2800000	1424662				
Hire Charges					25000	
Safety Expenses	3221400	3377199	3454000	2815390	2539000	1531470
General expenses	100000	14600			375000	150
Sub Total (Factory Overheads)	8554500	6006649.81	5740300	4147770	4196800	3074310
EHS						
Repairs & Maintenance						
R & P P & M Spares Cons	576000	1689049	450000	965190	1220000	850660
R & M P & M Contracts	2242000	2067993	1392000	680810	875000	1121890
R & M Others	500000	0	550000	5600	100000	
Sub Total (Repairs & Maintenance)	3318000	3757041.85	2392000	1651600	2195000	1972550

	11.07.16
2012-13	
Budget	Actual
20469031	17857071
10007640	7374631
60000	164593
725000	592523
135000	97378
178800	141100
150000	35212
25000	
2538675	818743
375000	480
4187475	1850029
1220000	971183
885000	503662
2105000	1474845

	ETP Cost (Total Actual Expenses incurred on ETP)	78839535.7	49669361.2	53950767	42500118	56469071	53992301
	Ambient Air Monitoring stations AMC	2540000	1910000	2100000	2011712	1100000	1087032
	GRAND TOTAL	121479430	84744276	104148867	78117930	99862351	90935223

60000000	47763000
900000	900000
97669146	77219576